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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,546	03/25/2004	Shuhei Yada	1417-454	4895

23117 7590 01/19/2007  
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EXAMINER
ZUCKER, PAUL A

ART UNIT	PAPER NUMBER
1621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/808,546

**Applicant(s)**

YADA ET AL.

**Examiner**

Paul A. Zucker

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-7 and 9-14 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/26/06</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-7 and 9-14, in the reply filed on 26 October 2006 is acknowledged.

***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 recites the limitation "a means for feeding an inert gas thereinto" in line 3. It is unclear to what location "thereinto". For example is the inert gas being introduced outside the reactor body or into the reactor body? Claim 2 and its dependents are therefore rendered indefinite.

***Claim Rejections - 35 USC § 102***

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7 and 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by JP (JP 53-94940 08-1978, English translation). JP discloses (See Fig 1) the instantly claimed apparatus in which a manhole nozzle projecting from a reactor body comprises a window 15, 115, a gas transport line 13, 113, partition plates 3 (rotating), 4 (adjustable) and a nozzle hole 13A, 113A. The walls of the nozzle are considered by the Examiner to represent a heat-retaining means. The Examiner notes that the use of an inert gas, nitrogen gas, combustion gas, catalyst, etc. represent process steps flowing from an intended use and are therefore not considered limitative of the instant apparatus claims. JP's disclosure therefore meets all limitations of the claimed apparatus. JP therefore anticipates claim 1-5, 7 and 9-14.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1-7 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP (JP 53-94940 08-1978, English translation) when considered with Iwao (US 3,759,087 09-1973).

An oxidation reactor comprising a reactor body and a manhole nozzle projecting from the reactor body, in which a partition plate is provided to separate an inside of the manhole nozzle and an inside of the reactor body from each other which further comprises a sampling tube for sampling an easily polymerizable compound-containing gas, said sampling tube having a double tube structure capable of feeding a heating medium into an outer tube thereof.

JP teaches (See Fig 1) the instantly claimed apparatus in which a manhole nozzle projecting from a reactor body comprises a window 15, 115, a gas transport line 13, 113, partition plates 3 (rotating), 4 (adjustable) and a nozzle hole 13A, 113A. The walls of the nozzle are considered by the Examiner to represent a heat-retaining means. The Examiner notes that the use of an inert gas, nitrogen gas, combustion gas, catalyst, etc. represent process steps flowing from an intended use and are

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therefore not considered limitative of the instant apparatus claims. JP's disclosure therefore meets all limitations of the claimed apparatus except one.

The instantly claimed apparatus differs from that taught by JP in that it incorporates a sampling tube having a double tube structure while JP does not appear to contemplate such a sampling tube.

Iwao, however, teaches (Fig 1) a double tube structure for the sampling of reaction gases.

One of ordinary skill in the art, wishing to optimize a process being performed using the apparatus of JP, would have been motivated to use the sampling device of Iwao in order to determine how changing different variables (temperature, pressure, etc) affected the outcome of the reaction of interest. There would have been a reasonable expectation for success based upon Iwao's teaching of the suitability of his device for the instantly required purpose.

Thus the instantly claimed apparatus would have been obvious to one of ordinary skill in the art.

### ***Double Patenting***

6. Claims 1 and 9 of this application conflict with claims 1 and 9 of Application No. 11/586,691. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for

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their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

***Conclusion***

7. Claims 1-7 and 9-14 are pending. Claims 1-7 and 9-14 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Zucker whose telephone number is 571-272-0650. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
PAUL A. ZUCKER, PH.D.  
PRIMARY EXAMINER

  
T. G. Calhoun 1621